



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/996,149

11/28/2001

Shawn R. Gettemy

035451-0175 (3721.Palm)

3054

26371

7590

11/29/2005

FOLEY & LARDNER LLP
777 EAST WISCONSIN AVENUE
SUITE 3800
MILWAUKEE, WI 53202-5308

EXAMINER

NGUYEN, CHANH DUY

ART UNIT

PAPER NUMBER

2675

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/996,149	Applicant(s) GETTEMY ET AL.	
	Examiner Chanh Nguyen	Art Unit 2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on February 16, 2005 has been entered and considered by examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 18, 21 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Failla (U.S. Patent No. 5,128,662) in view of Katsura (U.S. Patent No. 6,377,324)

As to claim 18, Failla (Fig 25) discloses a handheld computer including a housing (307), an expandable display assembly (310) supported on the housing (330), providing a first viewing area (312) and a second viewing area (314) substantially the same size as the first viewing area (312), the first view area (312) foldable underneath the second viewing area (314) when the expandable display assembly is folded (i.e. display segment 312 is folded as shown by curved directional arrow in Fig. 25).

The term "underneath" is interpreted that after the first viewing area (312) is folded, the display assembly (310) can be in position parallel with the support 330 by removing the strut (374). This position reads on the first viewing area (312) foldable underneath of the second viewing area (314). Also, Figures 46-47 of Failla can read on the limitation foldable underneath as recited in the claim. That is first viewing area (817) foldable underneath the second viewing area (814).

Failla teaches a user may view images on the viewing images on the second viewing area (314) when the display assembly is folded and on the combined first and second viewing area (312, 314) when the display assembly is unfolded (i.e. when the display segment 312 is folded, a user is still able to view the image on display segments 314). The only thing different between the claimed invention and the reference of Failla is that Failla does not mention a touch sensor associated with the expanded display. In same field of endeavor, Katsura teaches that the touch sensitive input operating part is integral part of the flexible liquid crystal display panel (4) (see column 5, lines 43-48). The touch sensitive input operating part of Katsura clearly has a touch sensor which is known in the art of touch screen panel. Therefore, it would have been obvious to one of

ordinary skill in the art at the invention was made to have used a touch sensor of Katsura to the display screen of Failla so that a switching member for data entry need not be provided outside the display screen, thereby the screen can be made larger (see column 5, lines 43-49 of Katsura).

As to claim 24, this claim differs from claim 18 in that claim 24 is method whereas claim 18 is apparatus. Thus method claim 24 is analyzed with respect to apparatus claim 18. The limitation "flexible display" recited in claim 24 is taught by Katsura (i.e a flexible liquid crystal display panel 4; see column 4, line 11).

As to claim 21, both Failla and Katsura clearly teaches the expandable display (110) being foldable and a handheld computer.

As to claim 25, since the flexible display (4) of Katsura mounted to the handheld computer (1 and 2) (see column 5, lines 11-13), it is clear that the flexible display (4) can be decoupled from the handheld computer (1-2) as broad claimed language.

As to claims 26 and 27, Katsura teaches the flexible display (4) having a touch sensitive input operating part through which data can be entered by touching (see column 5, lines 12-20). Thus, it would have been obvious that the touch by a user can be performed by a fingertip or stylus.

5. Claims 1, 3-4, 7, 9-10, 13 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Bodony et al (U.S. Patent No. 6,307,751) in view of Gamsaragan et al (U.S. 2002/0140,690 A1) and Failla.

As to claim 1, Bodony discloses a display system (100) , detachable from a host device (713) (see Figure 7 and Figure 19A) including a power source (712), a processor (702) coupled to the power source (712), a memory (708) coupled to the power source (712) and the processor (702). Bodony teaches a flexible electronic display (706) coupled to the processor (702) and the power source (712), a coupler (714) for coupling the flexible electronic display (706) to the host device (713). Bodony teaches a flexible touch screen sensor (touch screen; see column 7, lines 63-66) movable with the flexible electronic display (see column 12, lines 54-64 and column 13, lines 16-25). Bodony teaches a transceiver (714) coupled to the processor (702).

Bodony does not mention "the transceiver receives information from the host device when the display is decoupled from coupler, and images are provided on the display based on the information". However, using wireless transceiver to communicate between two devices is well-known in the art. For example, in same field of endeavor with Bodony, Gamsaragan teaches using a radio link established between transceiver (22) on the base station (12) and transceiver (24) on the computing display subsystem (14) (see sections 0016 and 0021). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used transceiver as taught by Gamsaragan to the display system of Bodony so that the data information can be transferred from base station or host to the portable computer when a user is traveling from his/her regular workplace without sacrificing substantial computing power (see sections 0004-0006 of Gamsaragan).

Both Bodony and Gamsaragan do not teach the flexible display being configured in more than two sections, each section being foldable behind on another section.

Failla (Figures 46-47) teaches a display assembly (807) being configured in more than two sections (display segments 812-817), each section (e.g., 817) being foldable back on another section (e.g., 814), such that whatever sections (e.g., 812-817) are view of the user including the display area being used by the host device (846). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used a foldable display as taught by Failla to the flexible display of Bodony as modified by Gamsaragan so as to enhanced amount of information display capability while still being readily storable for transportability (see column 2, lines 38-45 of Failla).

As to claim 13, this claim differs from claim 1 only in that the term "flexible display" recited in claim 1 is replaced by the term "foldable display" in claim 13. Failla (Figures 46-47) clearly teaches the display assembly (812-817) being foldable as recited in the claim.

As to claim 7, this claim is broader than claim 13 since it does not recite the limitation "transceiver" as claim 13. Adding the limitation "the flexible display system assembly having a first viewing area that are viewable by a user...., at least when decoupled from coupler" is clearly taught by Failla.

As to claims 3 and 9-10, Failla clearly teaches the flexible display being foldable ; see column 14, lines 60-62. Failla teaches the flexible display can be scrolled into a roller. Thus the flexible display of Failla clearly can be folded because it has function of very flexibility screen such as rolling. If it can be rolled , then why it cannot be folded.

As to claim 4, Bodony clearly teaches the host device being a handheld device (see column 9, lines 18-28).

As to claim 15, Bodony clearly teaches a coupler (714) coupled to a handheld computer (713).

6. Claims 2, 5, 8, 11, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodony in view of Gamsaragan and Failla, as applied to claims 1, 7 and 13, and further in view of Comiskey et al (U.S. Application Publication 2003/0067427).

As to claims 2, 8 and 14, note the discussion of Bodony, Gamsaragan and Failla above, Bodony, Gamsaragan and Failla do not mention the flexible electronic display being an electronic paper. Comiskey teaches that "the flexible display can be used as an electronic paper" (see page 8, paragraph 0095). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the electronic paper as taught by Comiskey to the display panel of Bodony as modified by Gamsaragan and Failla because the electronic paper can be used anywhere paper is used today but offers the ability to be updated via stylus (see page 8, paragraph 0095 of Comiskey).

As to claims 5, 11 and 16, Comiskey clearly teaches touch sensor including a transparent coating (see page 4, paragraph 0060).

Art Unit: 2675

7. Claims 6, 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodony in view Gamsaragan and Failla, as applied to claims 1, 7 and 13, and further in view of Charlier et al (U.S. Application Publication 2003/0064751).

As to claims 6, 12, 17, note the discussion of Bodony and Gamsaragan above, Bodony and Gamsaragan donot mention an electrotextile. Charlier teaches the use of well-known electrotextile material into the user interface (such as touch pad, key pad); see page 2, paragraph 0029. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used electrotextile material as taught by Charlier to the touch pad of Bodony as modified by Gamsaragan because the electrotextile sensor can be folded without damage of the sensor.

8. Claims 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Failla in view of Katsura, as applied to claim 18, and further in view of Comiskey.

As to claim 19, note the discussion of above Failla and Katsura, Failla and Katsura do not mention the flexible electronic display being an electronic paper. Comiskey teaches that "the flexible display can be used as an electronic paper" (see page 8, paragraph 0095). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the electronic paper as taught by Comiskey to the display panel of Failla as modified by Katsura because the electronic paper can be used anywhere paper is used today but offers the ability to be updated via stylus (see page 8, paragraph 0095 of Comiskey).

As to claim 22, Comiskey clearly teaches touch sensor including a transparent coating (see page 4, paragraph 0060).

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Failla in view of Katsura

As to claim 23, note the discussion of Failla and Katsura above, Failla and Katsura do not mention an electrotexile. Charlier teaches the use of well-known electrotexile material into the user interface (such as touch pad, key pad); see page 2, paragraph 0029. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used electrotexile material as taught by Charlier to the touch pad of Failla as modified by Katsura because the electrotexile sensor can be folded without damage of the sensor.

Response to Arguments

10. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, Figure 25 and Figures 46-47 is used for rejection claims 18, 21, 24-27 and 1, 3-4, 9-10, 13, 15.

On page 8, last paragraph, applicant argues that Failla in combination with Katsura does not disclose, teach or suggest "providing a first viewing area and providing a second viewing area substantially the same size as the first viewing area, the first viewing area foldable underneath the second viewing area. Examiner disagrees with applicant this point of view since after the first viewing area (312) of Failla is folded, the

display assembly (310) can be in position parallel with the support 330 by removing the strut (374). This position reads on the first viewing area (312) foldable underneath of the second viewing area (314). Also, Figures 46-47 of Failla can read on the limitation foldable underneath as recited in the claim. That is first viewing area (817) foldable underneath the second viewing area (814).

On page 9, first paragraph, applicant argues that there is a wasted area exposed to the viewer where nothing can be displayed (i.e., the back of section 214). However, both applicant's device and Failla's device provide one portion of display is folded behind the other portion of the display (314) (i.e. 312 is folded; Figure 25 or Figures 46-47) , only a portion of the displayed (e.g., 314) being used is exposed the viewer.

As to claims 1, 3-4, 7, 9-10, 13 and 15, Applicant argues that Failla does not disclose, teach or suggest a portion of the display being folded behind another portion of the display in folded condition. However, figure 25 and Figure 49 of Failla teaches a portion of the display being folded behind another portion of the display in folded condition.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Inquiries


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (571) 272-7772. The examiner can normally be reached on Monday- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2675

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Chanh Nguyen
Primary Examiner
Art Unit 2675


C. Nguyen
November 27, 2005